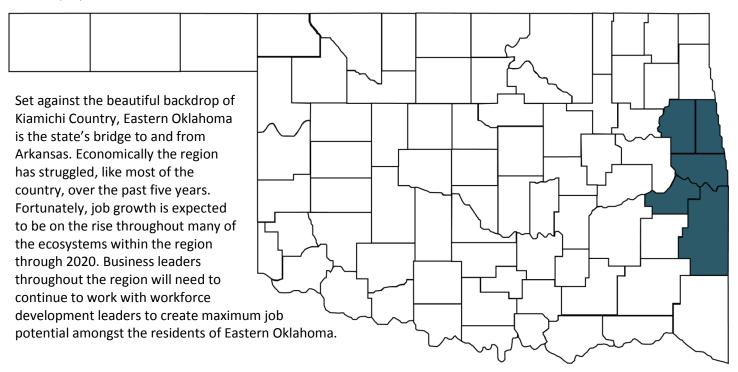
#### **Overview**

The Eastern Oklahoma Region, in this briefing, is comprised of the following counties: Adair, Cherokee, Haskell, Le Flore, and Sequoyah.

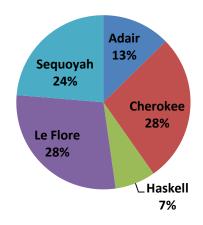


# **Demographics of Eastern Oklahoma**

Adair, Cherokee, Haskell, Le Flore, and Sequoyah counties combined for a 2012 Census estimated population of 174,255. Tahlequah is the largest city in the region with a 2012 Census estimated population of 16,333.

- Le Flore is the most populated county in the region, with a 2012 Census estimated population of 49,774. Cherokee County is a close second at 48,017 according to 2012 Census estimate.
- Haskell is the least populated county in region, with a 2012 Census estimated population of 13,052.
- Haskell, along with Cherokee County, have both experienced
   2.2% population growth since 2010.
- Adair, Le Flore, and Sequoyah have all experienced a loss of population ranging from -1.2% to -2.8% since 2010.

# Eastern Oklahoma Region Percentage of Population by County

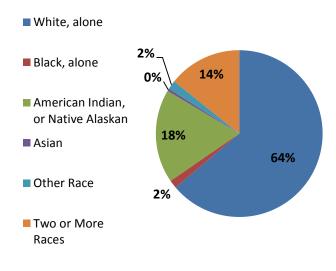


Source: Census Quick Facts



#### Population Breakdown by Race/Ethnicity:

## Eastern Oklahoma Region Percentage of Population by Race



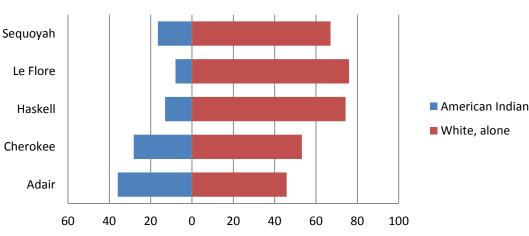
Source: ACS 2008-2012

- 60.5% of residents in the Eastern Oklahoma region identify themselves as, "white, alone." This racial group accounts for 73.5% of the population statewide, making this group significantly smaller in Eastern Oklahoma compared to the rest of the state.
- American Indian's account for 31,708 people in Eastern Oklahoma making them the second most populated racial group in the region with 17.2% of the total population. This is significantly higher than the American Indian statewide percentage of the population of 7.3%.
- All other racial groups in the region have very small percentages of the population. Black, Asian, and other race(s) do not account for greater than 2.0% of the total population. Native Hawaiian or Pacific Islander accounts for a negligible percentage of the population.
- Hispanics, which are categorized as an ethnicity by the Census bureau, make up 5.2% of the total population in Eastern Oklahoma.

#### The American Indian Population in Eastern Oklahoma:

Cherokee Nation makes up 73% of the total American Indian population in Eastern Oklahoma. In raw numbers that computes to 23,182 **Cherokee Nation** members living in the area. Cherokee Nation is based out of Tahlequah. In addition to Cherokee Nation. the United Keetoowah Band of Cherokees is based in Park Hill, which is just south of Tahlequah.

# Comparison, by Percentage, of American Indian to White, Alone Population in Eastern Oklahoma Counties



Source: ACS 2008-2012

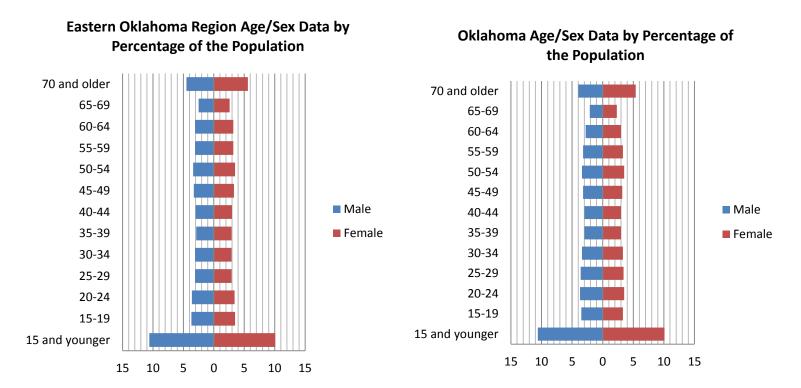
• There are a large number of American Indians, 10,940, younger than the age of 15 in the region. Schools and employers should see this as an opportunity to engage with this younger group of American Indians as they become active participants in the regional workforce.



• In each county in Eastern Oklahoma, the American Indian population accounts for more than 8.0% of total population. Le Flore has the smallest population by percentage at 8.0%, Adair has the largest American Indian percentage of the population at 35.9%

#### Age and Sex Data in Eastern Oklahoma:

- According to EMSI's first quarter of 2014 population estimate there are 177,696 people living in the region. Of that there are 89,221 women and 88,475 men. 50.2% of the population is comprised of females while 49.8% is male.
- Statewide, EMSI calculates a population of 3,830,874. Of that 50.4% are women, while men make up 49.6% of the population. In raw numbers that comes out to 1,932,539 women and 1,898,335 men.
- The general trend in population figures is congruent when comparing Eastern Oklahoma to the rest of the state. The population pyramids show similar bulge areas, specifically amongst youth and baby boomer age ranges.



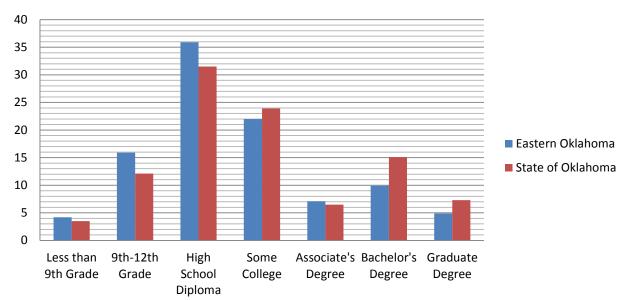
Source: EMSI 2014.1



#### **Educational Attainment in the Eastern Oklahoma Region:**

- Approximately 80% of people residing in the region have attained at least a high school diploma.
- Outside of Associate's degrees, Eastern Oklahoma lags behind state averages for college degrees.
- Additionally, the number of individuals completing less than high school is almost 5 percentage points higher in the region when compared to the statewide average.
- On a positive note, individuals seeking Associate's degrees or certifications in Eastern Oklahoma closely match statewide averages.
- Career Techs, colleges, and universities will have the opportunity to increase enrollment numbers as long as
  they are proactive in reaching out to students to make known what opportunities are available to them at their
  regional post-secondary learning centers.



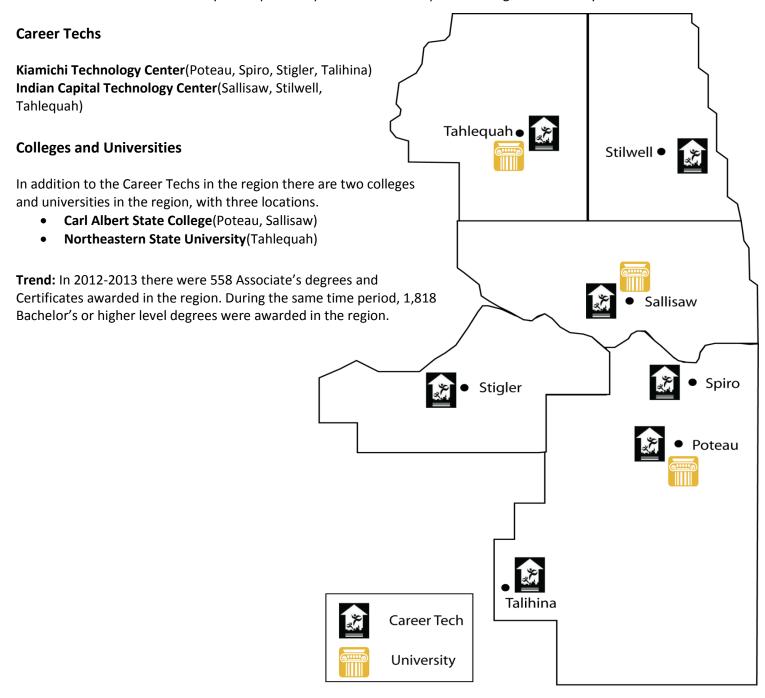


Source: A combination of EMSI's proprietary demographic data and multiple Census sources.



### **Eastern Oklahoma's Educational Assets**

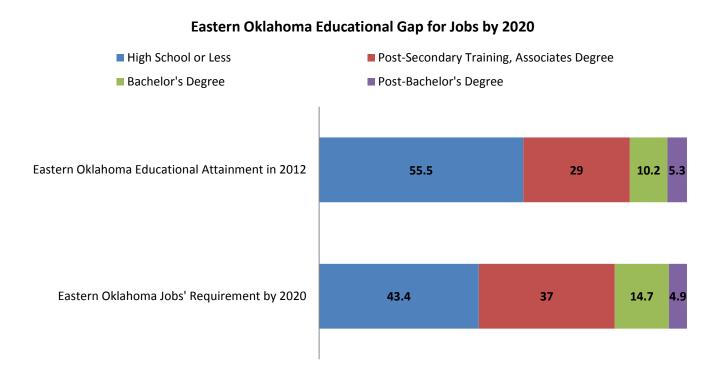
Career Techs, colleges and universities in the Eastern Oklahoma Region of Oklahoma are instrumental in developing the regions workforce. They are assets that allow the region and the rest of the state to supply organizations and companies with the labor and skills necessary to keep them operational and competitive in a global economy.





#### The Educational Gap in the Eastern Oklahoma Region:

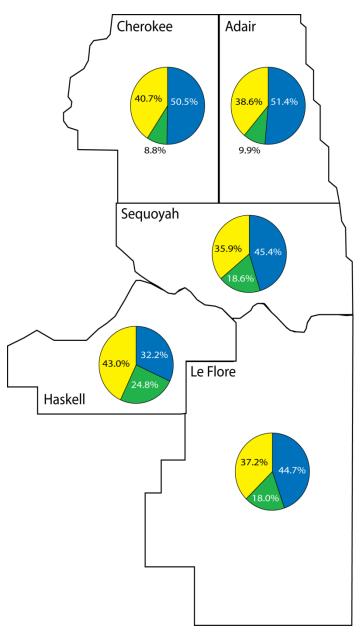
- Based on projected demand Eastern Oklahoma will need to see continued post-secondary education enrollment to meet 2020 requirements for jobs that require post-secondary training or an Associate's degree. Fortunately, the region is equipped with Career Techs and Universities to provide these services to residents.
- Additionally, Eastern Oklahoma needs to increase their number of residents with Bachelor's level attainment to be fully prepared for the job environment by 2020. Otherwise, their may be individuals with post-bachelor's degrees underemployed in certain ecosystems.
- Of concern when looking at this data is the concentration of most jobs in the high school or less and some college categories. This means that jobs in the region are expected to remain in low-skilled industries which will likely contribute to wages maintaining their statuses well below state averages across all industries in the region.



Source: A combination of EMSI's proprietary demographic data and 2008-2012 ACS



#### **Commuter Data**



- According to the commuting data, greater than 50% of residents in the region either work in county or stay in region when commuting to their workplace.
- Tulsa, McAlester, Muskogee and Ft. Smith, AR are a few of the most common out of region destinations for commuters that reside within the Eastern Oklahoma region.
- With relatively dispersed commerce in the region, this data illustrates that residents, regardless of the strength or weakness of the economy, would still prefer to stay within close distance to their homes when commuting to their workplaces.

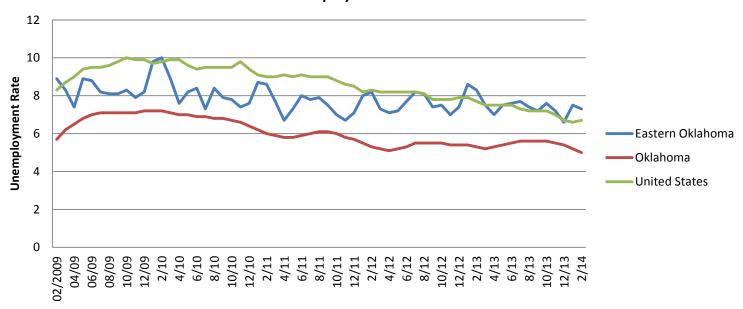


#### **Economic Data**

#### **Unemployment Rate:**

- The Eastern Oklahoma region for the most part has stayed below the national unemployment rate and above the state rate since February of 2009. While having reached a peak of 10% in February of 2010 the unemployment rate in the region is currently 7.3%.
- One of the reasons why Eastern Oklahoma's employment trends have struggled compared to the rest of the state is because, unlike many areas of the state, they have not benefitted in as significant of a way from the shale revolution that has occurred in the past five years.
- On a positive note, Eastern Oklahoma, even with its' struggles, still has maintained a gradual declining trend in unemployment rates since the end of the Great Recession.
- Oklahoma, as of March 2014, is tied for the 12<sup>th</sup> lowest unemployment rate in the country at 4.9%.

#### **5 Year Unemployment Rate Trend**

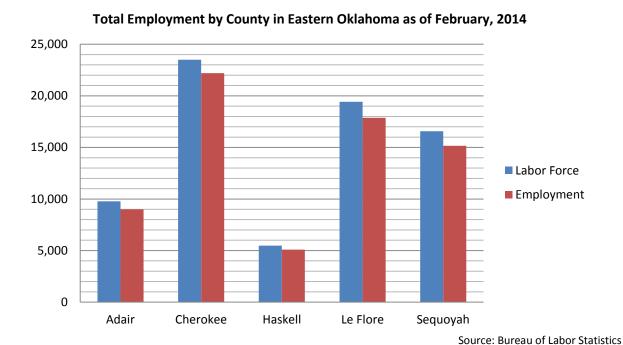


Source: Bureau of Labor Statistics, Local Area Unemployment Statistics



#### **Total Employment:**

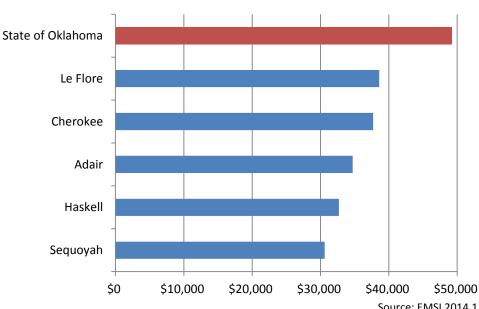
- In raw numbers, of the 74,753 people in Eastern Oklahoma seeking employment 69,319 are employed. 92.7% of the labor force in the region is employed.
- Cherokee County possesses both the largest labor force and largest number of people employed in the region. This is a bit surprising since Le Flore County is technically the most populated county in the region and the gap between Cherokee's and Le Flore's labor force is over 4,000 people, whereas Le Flore has approximately 1,700 more people in their total population.
- Outside of Cherokee and Le Flore, the rest of the counties line-up in kind with their population numbers.



## Wages by County:

- Wages throughout the Eastern Oklahoma region trail the state's average of \$49,200. The gap between Eastern Oklahoma's counties and the state average ranges from \$10,600 to \$18,600.
- Le Flore and Cherokee counties have a difference of \$900 dollars when it comes to annual yearly earnings. Le Flore at \$38,600 and Cherokee at \$37,700.
- Sequoyah has the lowest average yearly earnings in the region at \$30,600.

#### **Average Yearly Earnings by County**

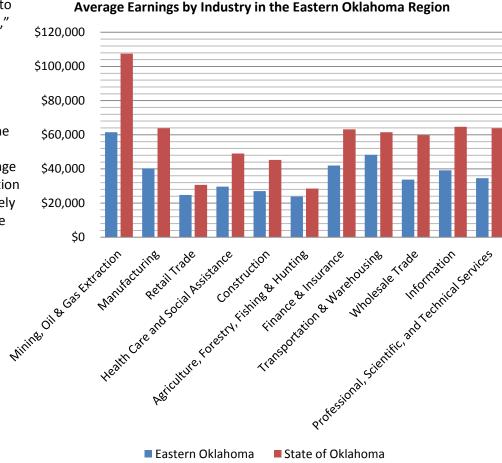


Source: EMSI 2014.1



#### Wages by Industry:

- Industry earnings in Eastern Oklahoma, similar to county average yearly earnings, all track lower than state averages. The most noticeable earnings difference occurs in the, "Mining, Oil & Gas Extraction," industry. Statewide this position earns \$40,000 more than in Eastern Oklahoma.
- The two industries in Eastern Oklahoma that track the closest to state averages are, "Retail Trade," and "Agriculture." The earnings difference in both industries is within \$6,000 dollars when comparing Eastern Oklahoma averages to the state average.
- Mining, Oil & Gas Extraction is the only industry in the region that outpaces the state's yearly average earnings at \$61,444. Transportation & Warehousing falls approximately \$1,000 dollars short of hitting the state average of \$49,200.



Source: EMSI 2014.1



# **Major Employers in Eastern Oklahoma**

Listed below are some of the more significant employers in the region. Commerce in Eastern Oklahoma is not primarily concentrated in any one area; however there are a significant number of health and rehabilitative services employers in the area.

Employer	City(s)	Industry
Reasors Inc.	Tahlequah	Supermarkets and Other Grocery Stores
Northeastern State University	Tahlequah	Colleges, Universities, and Professional Schools
Indian Health Services	Tahlequah, Talihina	American Indian and Alaska Native Tribal Governments
Cherokee Nation Entertainment	Tahlequah	Amusement and Recreation
Choctaw Casino	Pocola	Casinos
Ki Bois Community Action	Stigler	Other Individual and Family Services
OK Food's Inc.	Heavener	Poultry Processing
Tahlequah City Hospital	Tahlequah	General Medical and Surgical Hospitals
Greenleaf Nursery Co. Inc.	Park Hill	Nursery and Tree Production
Wal-Mart Associates	Tahlequah	Warehouse Clubs and Supercenters
People Inc. of Sequoyah County	Sallisaw	Vocational Rehabilitation Services
Schwan's Global Supply Chain Inc.	Stilwell	Frozen Cakes, Pies, and Other Pastries  Manufacturing
Wal-Mart Associates	Poteau	Warehouse Clubs and Supercenters
Carl Albert State College	Poteau	Community College
Oklahoma Department of Veterans Affairs	Talihina	Nursing Care Facilities
Adair County Health Center	Stilwell	General Medical and Surgical Hospitals
Sequoyah Memorial Hospital	Sallisaw	General Medical and Surgical Hospitals
Firstar Bank N.A.	Sallisaw	Commercial Bank
United Ketoowah Band of		American Indian and Alaska Native Tribal
Cherokee	Tahlequah	Governments
Berry & Berry Acquisition, LLC	Park Hill	Nursery and Tree Production
Kenco Plastics	Poteau	Other Plastics Product Manufacturing
Nabors Drilling	Pocola	Drilling Oil and Gas Wells

Source: Lexis, OneSource, QCEW



## **Ecosystems Impact in the Eastern Oklahoma Region on Occupations and Salaries**

The Oklahoma Department of Commerce identified five ecosystems in Oklahoma important to the economy to generate wealth, have employment growth potential, or where the state has a competitive advantage. In each ecosystem, there are critical occupations necessary for future growth and advancement. In addition to the five statewide ecosystems, there are ecosystems at the regional level important for regional economies.

## **Aerospace & Defense**

Based on 2013 job numbers there are 1,410 jobs in the Aerospace & Defense Ecosystem in the Eastern Oklahoma region with average earnings of \$41,795.

As a projection of demand by 2020 total employment in the Aerospace and Defense ecosystem will grow to 1,462 jobs in Eastern Oklahoma, an addition of 52 jobs for the region.

The list below encompasses some of the critical occupations for the Aerospace and Defense ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Aerospace and Defense ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education level
11-1021	General and Operations Managers	\$33.56	Bachelor's or higher degree, plus work experience
13-1111	Management Analysts	\$29.55	Bachelor's or higher degree, plus work experience
17-2011	Aerospace Engineers	\$43.19	Bachelor's degree
17-2051	Civil Engineers	\$32.62	Bachelor's degree
17-2112	Industrial Engineers	\$30.06	Bachelor's degree
17-2141	Mechanical Engineers	\$35.24	Bachelor's degree
15-1121	Computer Systems Analysts	\$44.82	Bachelor's degree
15-1131	Computer Programmers	\$26.08	Bachelor's degree
49-3011	Aircraft Mechanics and Service Technicians	\$30.70	Postsecondary non-degree award
49-3023	Automotive Service Technicians and Mechanics	\$13.13	Postsecondary non-degree award
51-4121	Welders, Cutters, Solderers, and Brazers	\$16.22	Postsecondary non-degree award
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	\$14.71	Moderate-term on-the-job training
15-1141	Database Administrators	\$37.61	Bachelor's degree
47-2111	Electricians	\$16.67	Long-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	\$15.77	Long-term on-the-job training

Source: EMSI 2014.2

As previously mentioned, the critical occupations above are necessary for the Aerospace & Defense ecosystem to thrive. Just as important, these critical occupations are necessary for other industries as well. Other industries that demand these occupations include Engineering Services, Crude Petroleum & Natural Gas Extraction, and Oil & Gas Field Machinery Manufacturers among others in Eastern Oklahoma.



## **Agriculture & Bioscience**

Based on 2013 job numbers there are 4,710 jobs in the Agriculture & Bioscience ecosystem in the Eastern Oklahoma region with average earnings of \$28,992.

As a projection of demand, by 2020 total employment in the Agriculture and Bioscience ecosystem will decrease to 3,767 jobs in Eastern Oklahoma, a loss of 943 jobs for the region.

The list below encompasses some of the critical occupations for the Agriculture and Bioscience ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Agriculture and Bioscience ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education level
53-7051	Industrial Truck and Tractor Operators	\$12.09	Short-term on-the-job training
11-9013	Farmers, Ranchers, and Other Agricultural Managers	\$9.96	Work experience in a related occupation
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$9.35	Short-term on-the-job training
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	\$8.19	Short-term on-the-job training
45-2091	Agricultural Equipment Operators	\$10.21	Short-term on-the-job training
45-2041	Graders and Sorters, Agricultural Products	\$8.79	Short-term on-the-job training
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	\$14.41	Work experience in a related occupation
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$9.30	Short-term on-the-job training
37-3011	Landscaping and Groundskeeping Workers	\$10.51	Short-term on-the-job training
45-2099	Agricultural Workers, All Other	\$9.76	Short-term on-the-job training
19-2042	Geoscientists, Except Hydrologists and Geographers	\$86.99	Bachelor's degree
49-3041	Farm Equipment Mechanics and Service Technicians	\$13.31	Long-term on-the-job training
17-2141	Mechanical Engineers	\$35.24	Bachelor's degree
17-2112	Industrial Engineers	\$30.06	Bachelor's degree
13-1051	Cost Estimators	\$28.33	Bachelor's degree

Source: EMSI 2014.2

As previously mentioned, these occupations are necessary for the Agriculture & Bioscience ecosystem to thrive. Just as important, they are necessary for other industries as well. Other industries that demand these occupations include General Freight Trucking, Nitrogenous Fertilizer Manufacturing, and Grain Merchant Wholesalers among others in Eastern Oklahoma.



## **Energy**

Based on 2013 job numbers there are 2,122 jobs in the Energy Ecosystem in the Eastern Oklahoma region with average earnings of \$65,268.

As a projection of demand, by 2020 total employment in the Energy ecosystem will grow to 2,356 jobs in Eastern Oklahoma, an addition of 234 jobs for the region.

The list below encompasses some of the critical occupations for the Energy ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Energy ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education level
11-1021	General and Operations Managers	\$33.56	Bachelor's or higher degree, plus work experience
17-2141	Mechanical Engineers	\$35.24	Bachelor's degree
17-2171	Petroleum Engineers	\$57.80	Bachelor's degree
19-2042	Geoscientists, Except Hydrologists and Geographers	\$86.99	Bachelor's degree
47-2051	Cement Masons and Concrete Finishers	\$17.59	Moderate-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	\$17.15	Moderate-term on-the-job training
47-2111	Electricians	\$16.67	Long-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	\$15.77	Long-term on-the-job training
47-2211	Sheet Metal Workers	\$17.89	Long-term on-the-job training
47-5012	Rotary Drill Operators, Oil and Gas	\$16.72	Moderate-term on-the-job training
47-5013	Service Unit Operators, Oil, Gas, and Mining	\$16.28	Moderate-term on-the-job training
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	\$17.15	Moderate-term on-the-job training
51-2031	Engine and Other Machine Assemblers	\$32.40	Short-term on-the-job training
51-2041	Structural Metal Fabricators and Fitters	\$21.53	Moderate-term on-the-job training
49-9041	Industrial Machinery Mechanics	\$20.28	Long-term on-the-job training

Source: EMSI 2014.2

As previously mentioned, these occupations are necessary for the Energy ecosystem to thrive. Just as important, they are necessary for other industries as well. Other industries that demand these occupations include General Freight Trucking, and Commercial & Industrial Equipment Maintenance.



#### **Information & Financial Services**

Based on 2013 job numbers there are 1,667 jobs in the Information & Financial Services ecosystem in the Eastern Oklahoma region with average wages of \$44,350.

As a projection of demand, by 2020 total employment in the Information and Financial Services ecosystem will grow to 1,784 jobs in Eastern Oklahoma, an addition of 117 jobs for the region.

The list below encompasses some of the critical occupations for the Information and Financial Services ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Information and Financial Services ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education level
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$12.80	Moderate-term on-the-job training
11-1021	General and Operations Managers	\$33.56	Bachelor's or higher degree, plus work experience
13-2011	Accountants and Auditors	\$22.78	Bachelor's degree
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$15.30	Moderate-term on-the-job training
15-1151	Computer User Support Specialists	\$16.30	Associate's degree
13-1111	Management Analysts	\$29.55	Bachelor's or higher degree, plus work experience
15-1152	Computer Network Support Specialists	\$14.42	Associate's degree
15-1121	Computer Systems Analysts	\$44.82	Bachelor's degree
15-1132	Software Developers, Applications	\$45.37	Bachelor's degree
13-1051	Cost Estimators	\$28.33	Bachelor's degree
13-2051	Financial Analysts	\$19.54	Bachelor's degree
15-1199	Computer Occupations, All Other	\$40.32	Bachelor's degree
15-1141	Database Administrators	\$37.61	Bachelor's degree
17-2199	Engineers, All Other	\$34.74	Bachelor's degree
15-1133	Software Developers, Systems Software	\$22.91	Bachelor's degree

Source: EMSI 2014.2

As previously mentioned, these occupations are necessary for the Information & Financial Services ecosystem to thrive. Just as important, they are necessary for other industries as well. Other industries that demand these occupations include Computer Systems Design, Engineering Services and Wholesale Trade among others.



## **Transportation & Distribution**

Based on 2013 job numbers there are 2,104 jobs in the Transportation & Distribution ecosystem in the Eastern Oklahoma region with average earnings of \$40,756.

As a projection of demand, by 2020 total employment in the Transportation and Distribution ecosystem will decrease to 2,059, a loss of 45 jobs for the region.

The list below encompasses some of the critical occupations for the Transportation and Distribution ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Transportation and Distribution ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education level
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$23.27	Short-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	\$17.15	Moderate-term on-the-job training
47-2111	Electricians	\$16.67	Long-term on-the-job training
51-2092	Team Assemblers	\$13.32	Moderate-term on-the-job training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	\$15.96	Postsecondary non-degree award
17-2051	Civil Engineers	\$32.62	Bachelor's degree
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	\$20.85	Long-term on-the-job training
17-2141	Mechanical Engineers	\$35.24	Bachelor's degree
49-3011	Aircraft Mechanics and Service Technicians	\$30.70	Postsecondary non-degree award
17-2112	Industrial Engineers	\$30.06	Bachelor's degree
13-1081	Logisticians	\$41.10	Bachelor's degree
15-1133	Software Developers, Systems Software	\$22.91	Bachelor's degree
15-1131	Computer Programmers	\$26.08	Bachelor's degree
15-1142	Network and Computer Systems Administrators	\$22.96	Bachelor's degree
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$16.38	Moderate-term on-the-job training

Source: EMSI 2014.2

As previously mentioned, these occupations are necessary for the Transportation & Distribution ecosystem to thrive. Just as important, they are necessary for other industries as well. Other industries that demand these occupations include Support Activities for Oil & Gas Operations and Oil & Gas Machinery Manufacturing among others.



## **Health Care(Regional Complementary)**

Based on 2013 job numbers there are 6,708 jobs in the Health Care ecosystem in the Eastern Oklahoma region with average wages of \$29,671.

As a projection of demand, by 2020 total employment in the Health Care ecosystem will grow to 8,540 jobs in Eastern Oklahoma, an addition of 1,832 jobs for the region.

The list below encompasses some of the critical occupations for the Health Care ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Health Care ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education level
31-1014	Nursing Assistants	\$9.74	Postsecondary non-degree award
29-1141	Registered Nurses	\$24.19	Bachelor's degree
29-2061	Licensed Practical and Licensed Vocational Nurses	\$16.36	Postsecondary non-degree award
29-2041	Emergency Medical Technicians and Paramedics	\$13.03	Postsecondary non-degree award
11-9111	Medical and Health Services Managers	\$32.97	Bachelor's degree
29-1069	Physicians and Surgeons, All Other	\$93.11	First professional degree
29-1051	Pharmacists	\$66.30	First professional degree
29-2071	Medical Records and Health Information Technicians	\$11.92	Postsecondary non-degree award
29-2034	Radiologic Technologists	\$19.38	Associate's degree
29-2011	Medical and Clinical Laboratory Technologists	\$21.94	Bachelor's degree
29-2021	Dental Hygienists	\$38.97	Associate's degree
29-2099	Health Technologists and Technicians, All Other	\$17.39	Postsecondary non-degree award
29-2032	Diagnostic Medical Sonographers	\$23.65	Associate's degree
11-1021	General and Operations Managers	\$33.56	Bachelor's or higher degree, plus work experience
31-1011	Home Health Aides	\$10.71	Short-term on-the-job training

Source: EMSI 2014.2

As previously mentioned, these occupations are necessary for the Health Care ecosystem to thrive. Just as important, they are necessary for other industries as well. Other industries that demand these occupations include Scientific Research and Development Services and Pharmaceutical and Medicine Manufacturing among others.



## **Construction(Regional Complementary)**

Based on 2013 job numbers there are 2,985 jobs in the Construction ecosystem in the Eastern Oklahoma region with average wages of \$27,016.

As a projection of demand, by 2020 total employment in the Construction ecosystem will grow to 3,106 jobs in Eastern Oklahoma, an addition of 121 jobs for the region.

The list below encompasses some of the critical occupations for the Construction ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Construction ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education Level
47-2061	Construction Laborers	\$11.41	Short-term on-the-job training
47-2031	Carpenters	\$13.45	Long-term on-the-job training
11-9021	Construction Managers	\$14.02	Bachelor's degree
47-2111	Electricians	\$16.67	Long-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	\$17.15	Moderate-term on-the-job training
47-2141	Painters, Construction and Maintenance	\$11.37	Moderate-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	\$18.51	Long-term on-the-job training
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$15.77	Postsecondary non-degree award
47-2051	Cement Masons and Concrete Finishers	\$14.05	Moderate-term on-the-job training
47-2181	Roofers	\$17.59	Moderate-term on-the-job training
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$11.81	Short-term on-the-job training
47-2151	Pipelayers	\$23.27	Short-term on-the-job training
47-2081	Drywall and Ceiling Installers	\$14.20	Moderate-term on-the-job training
47-2044	Tile and Marble Setters	\$11.97	Long-term on-the-job training
51-4121	Welders, Cutters, Solderers, and Brazers	\$16.22	Postsecondary non-degree award

Source: EMSI 2014.2

As previously mentioned, these occupations are necessary for the Construction ecosystem to thrive. Just as important, they are necessary for other industries as well. Other industries that demand these occupations include Support Activities for Wholesale Trade, Machine Shops and Energy sector related Construction among others in the Eastern Oklahoma region.



# **Manufacturing(Regional Complementary)**

Based on 2013 job numbers there are 3,114 jobs in the Manufacturing ecosystem in the Eastern Oklahoma region with average wages of \$40,351.

As a projection of demand, by 2020 total employment in the Manufacturing ecosystem will decrease to 3,025 jobs in Eastern Oklahoma, a loss of 89 jobs for the region.

The list below encompasses some of the critical occupations for the Manufacturing ecosystem in Eastern Oklahoma. However, these occupations are not solely intended to serve the Manufacturing ecosystem, they are driven by demand and individuals with these work backgrounds will have transferable skills to other ecosystems.

		Median Hourly	
SOC	Description	Earnings	Education Level
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$9.30	Short-term on-the-job training
51-2092	Team Assemblers	\$13.32	Moderate-term on-the-job training
49-9071	Maintenance and Repair Workers, General	\$13.26	Moderate-term on-the-job training
51-9061	Inspectors, Testers, Sorters, Samplers and Weighers	\$16.38	Moderate-term on-the-job training
51-4041	Machinists	\$13.61	Long-term on-the-job training
51-1011	First-Line Supervisors of Production and Operating Workers	\$29.65	Work experience in a related occupation
51-2022	Electrical and Electronic Equipment Assemblers	\$11.18	Short-term on-the-job training
11-1021	General and Operations Managers	\$33.56	Bachelor's or higher degree, plus work experience
53-7051	Industrial Truck and Tractor Operators	\$12.09	Short-term on-the-job training
11-3051	Industrial Production Managers	\$37.93	Bachelor's or higher degree, plus work experience
49-9041	Industrial Machinery Mechanics	\$20.28	Long-term on-the-job training
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators and Tenders	\$12.11	Moderate-term on-the-job training
17-2112	Industrial Engineers	\$30.06	Bachelor's degree
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters	\$14.71	Moderate-term on-the-job training
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	\$14.56	Moderate-term on-the-job training

Source: EMSI 2014.2

As previously mentioned, these occupations are necessary for the Manufacturing ecosystem to thrive. Just as important, they are necessary for other industries as well. Other industries that demand these occupations include Support Activities for Textile and Fabric Mills and Support Activities for Construction Operations among others.